modeling in cost-based physician profiling. Here, we examine a refined modeling approach and the use of physician quality score. **METHODS:** Symmetry's Episode Treatment Groups (ETG)TM software was employed to group 2 years of commercial claims for 1 million members and 6,000 physicians into episodes. Our previous method used more than 200 ETG-level Gamma regressions to generate expected costs for each care episode, which were then used to calculate the standardized cost difference (SCD) in an effort to characterize physician practice efficiency. In this approach, we refined our method by conducting one Gamma regression model for all episodes across all ETG types, which enabled us to estimate physicians' relative performance more consistently and efficiently based on the inclusion of physician-specific intercepts. Regression models controlled for patient demographic, health status, and disease severity characteristics as well as physician quality score to control for the marginal cost incurred for the provision of evidence-based care (i.e., tests, screenings). The weighted kappa score was calculated to assess agreement between the two approaches. **RESULTS:** The weighted kappa between physician rankings from the intercept model and SCD approach was 0.90, suggesting that the two methods generated similar physician practice efficiency scores. Physician quality played a significant role across all specialties (higher quality was associated with 12% higher cost, p-value < 0.0001), but differed with regard to certain specialties (higher quality was associated with 15% lower costs for internal medicine, p-value = 0.003), which could have been indicative of downstream costs that were avoided due to improved quality of care. **CONCLUSION:** A regression approach with physician-specific intercepts that controls for a comprehensive set of patient factors and physician quality score produces more consistent and efficient estimates of physician cost and is more congruent with the goals of quality measurement.

PHP28

DEVELOPMENT OF THE CAT-HEALTH SYSTEM: THE FIRST COMPUTER-ADAPTIVE TESTING SYSTEM IN SPAIN FOR EVALUATING THE HEALTH RELATED QUALITY OF LIFE OF ILL OR HEALTHY GENERAL POPULATION SUBJECTS

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OBJECTIVES: Computer Adaptive Testing (CAT) are assessment instruments based on the Item Response Theory. CAT use a reduced number of questions (selected from a calibrate item-bank) in evaluating the subject with a minimum error. These are characteristics which would be very useful in the Health-Related Quality of Life-HRQoL area. The purpose of the present work was to develop a calibrated bank of HRQoL items to used it in the to construction of a CAT for evaluating the generic HRQoL in our country: the CAT-Health. **METHODS:** HRQoL was considered as an unidimensional construct. An expert panel constructed the item bank with items from validated HRQoL questionnaires and original ones, all with a likert scale of five alternatives. A pilot group was interviewed with all these items to evaluate parameters of Classic and Item Response Theories and select the anchoring items. A normative group answered part of the items (through a computer application or in paper) and items were re-calibrated (using Samejima's Graded Response Model-GRM) and norms of item selection were designed. Various simulation studies were carried-out with the final calibrated bank of HRQoL items. **RESULTS:** Experts panel constructed a bank of 140 HRQoL items. Pilot group (N = 185) answered all the items: 12 items were eliminated because homogeneity coefficient was under 0.20; Cronbach's alpha was 0.99; factorial analysis confirmed the uni-dimensionality of the item bank; IRT showed that 23 items had a "b" parameter which did not fit the model (eliminated). Normative group (N = 1.373) answered 10 different questionnaires (5 anchoring items and 10 different) constructed with the 105 items remaining in the bank: Information function indicated that 9 items must be eliminated; GRM was applied to re-calibrate the items. Finally, norms of item selection were designed and simulations were carried-out. **CONCLUSION:** A new CAT to evaluate generic HRQoL has been developed and tested through simulation techniques.

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THE RELATIONSHIP BETWEEN PHYSICIAN EMPATHY AND SATISFACTION WITH PRIMARY CARE PHYSICIANS: FINDINGS FROM AN INTERNET BASED SURVEY

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OBJECTIVES: This study examined patent's satisfaction with their physician. Patient satisfaction is a quality measure that affects treatment outcomes. More specifically it examines how perceived patients' perceptions of empathy from a physician affect patient satisfaction. **METHODS:** A cross-sectional Internet-based survey completed by patients visiting primary care physician offices resulted in a convenience sample of 20,901 patient respondents who rated their recent visit to a physician through a web-based survey. The survey included questions based on aspects of overall satisfaction with the physician care and office practice and more detailed items including demographics such as "friendliness", empathy and time spent with doctor as well as areas that could be improved. These scales were then used to represent patient satisfaction. How "friendliness and caring" the physician was perceived to be was used as a measure of perceived empathy. **RESULTS:** Of the 20,901 patients surveyed from the online survey perceived empathy was the most strongly predominant correlate associated with patient satisfaction with their physician was that of empathy with a partial correlation of 0.87 ($p < 0.001$) and a Pearson correlation of 0.92 ($p < 0.001$). Patient satisfaction with the office setting was also highly correlated with empathy scores with a partial correlation of 0.72 ($p < 0.001$) and a Pearson correlation of 0.83 ($p < 0.001$). Other factors such as waiting time and problems with appointments, staff, records, parking doctor care, and ways of obtaining information also played a role in how the patients' perceived their overall satisfaction with the physician. **CONCLUSION:** The patient satisfaction ratings are strongly correlated to patient perception of empathy.

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HEALTH OUTCOMES AMONG INDIVIDUALS WITH AND WITHOUT HEALTH INSURANCE IN THE UNITED KINGDOM: RESULTS OF A MATCHED SAMPLE ANALYSIS OF A RETROSPECTIVE DATABASE

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OBJECTIVES: To identify and describe differences in demographics, quality of life, resource utilization, and health status between those with and without private health insurance in the UK. **METHODS:** Data for this analysis were obtained from the 2006 National Health and Wellness Survey (NHWS), an annual nationally representative Internet-based study of the health status, health care attitudes, behaviors, and outcomes of adults